

1. A prioritization apparatus for data in a communication channel, comprising:
  - a prioritization module configured to define a plurality of prioritization levels;
  - a communication module configured to process tasks over a plurality of communication channels;
  - an upgrade module configured to upgrade the prioritization level of unsuccessful tasks; and
  - a task controller configured to maintain system resources on a failed target channel while resubmitting an unsuccessful task to a different channel.
2. The prioritization apparatus of claim 1, wherein the task controller is further configured to communicate with a status module, the status module configured to indicate system resource usage of a target device operatively coupled to the channel.
3. The prioritization apparatus of claim 2, wherein the target device further comprises a computer readable storage device.
4. The prioritization apparatus of claim 1, wherein the task controller further comprises a load module configured to distribute tasks across the plurality of communication channels according to a load balancing scheme.
5. The prioritization apparatus of claim 4, wherein the load balancing scheme dedicates a majority of system resources to tasks with a high priority, and a minority of system resources to tasks with a lower priority.

6. The prioritization apparatus of claim 1, wherein the task controller further comprises a plurality of counters for each of the plurality of channels, the counters configured to track system resource usage of the plurality of channels.

7. A device controller apparatus, comprising:

a status module configured to track system resources of a device; and  
a task processing module configured to receive tasks with upgraded prioritization levels.

8. The device controller apparatus of claim 7, wherein the task processing module is further configured to receive tasks of different priorities according to a predefined prioritization scheme.

9. The device controller apparatus of claim 7, further comprising a queue of tasks to be processed.

10. The device controller apparatus of claim 7, wherein the task processing module is further configured to place tasks with upgraded prioritization levels at the beginning of the queue for processing.

11. The device controller apparatus of claim 7, wherein the task processing module is configured to maintain system resources on a failed channel while the task is resubmitted to a different channel.

12. The device controller apparatus of claim 7, wherein the task processing module is configured to release system resources after the failed task is successfully completed on a different channel.

13. The apparatus of claim 7, further comprising a computer readable storage device coupled to the apparatus and configured to process read/write tasks received from the task controllers.

14. The apparatus of claim 13, wherein the computer readable storage device is configured to process input/output tasks from the plurality of task controllers.

15. A system for task prioritization, the system comprising:

a data communications network comprising a plurality of communication channels;

a target device coupled to the network, the target device configured to receive tasks over the network, the target device comprising a status module configured to track system resources;

a server coupled to the network, the server configured to receive read/write tasks from a client device and transfer the task to the target device;

a task controller coupled to the server and configured to maintain system resources on a failed target channel while resubmitting the unsuccessful task to a different channel; and

an upgrade module operatively coupled to the server, the upgrade module configured to upgrade the prioritization level of an unsuccessful task and communicate the unsuccessful task from to a different channel.

16. The system of claim 15, further comprising a prioritization module coupled to the server and configured to define a plurality of prioritization levels.

17. The system of claim 15, wherein the task controller further comprises a counter that is updateable and configured to indicate system resource usage of the target device.

18. The system of claim 15, wherein the prioritization module is configured to allocate a majority of system resources to a task with a higher priority and a minority of system resources to a task with a lower priority.

19. A method for maintaining task prioritization and load balancing, the method comprising:

selecting a communication channel, processing a task over the selected communication channel, and updating a counter according to utilized system resources;

upgrading a prioritization level of an unsuccessful task and communicating the unsuccessful task to a different channel; and

maintaining system resources on a failed target channel while resubmitting an unsuccessful task to a different channel.

20. The method of claim 19, wherein selecting a communication channel comprises distributing tasks across the plurality of communication channels according to a load balancing scheme.

21. The method of claim 19, further comprising incrementing a counter prior to processing the task.

22. The method of claim 19, further comprising incrementing a second counter on a second channel when processing a failed task on the second channel.

23. The method of claim 19, further comprising incrementing and decrementing counters on subsequent failed channels.

24. The method of claim 23, further comprising decrementing the counter after the task successfully completes on a different channel.

25. A computer readable storage medium comprising computer readable code configured to carry out a process for maintaining task prioritization and load balancing, the process comprising:

selecting a communication channel, processing a task over the selected communication channel, and updating a counter according to utilized system resources;

upgrading a prioritization level of an unsuccessful task and communicating the unsuccessful task to a different channel; and

maintaining system resources on a failed target channel while resubmitting an unsuccessful task to a different channel.

26. The process of claim 25, wherein selecting a communication channel comprises distributing tasks across the plurality of communication channels according to a load balancing scheme.

27. The process of claim 25, further comprising incrementing a counter prior to processing the task.

28. The process of claim 25, further comprising incrementing and decrementing counters on subsequent failed channels.

29. The process of claim 25, further comprising decrementing a counter after the task successfully completes on a different channel.

30. A prioritization apparatus for data in a communication channel, comprising:

means for defining a plurality of prioritization levels;

means for upgrading the prioritization level of an unsuccessful task and communicate the unsuccessful task to a different channel;

means for selecting a communication channel, processing a task over the selected communication channel, and updating a counter according to utilized system resources;

means for transmitting and receiving tasks over the plurality of communication channels; and

means for distributing tasks across the plurality of communication channels according to a load balancing scheme.